EPA NO. <u>(159000</u> 2	7
--------------------------	---

FILE NO. PI-6 2118893 REGION 8 SAMPLE BROKER, FAX - 303-312-782b ULSA No: U8-990011 CONTRACTOR: CSCC: REQUEST FOR UNIQUE LABORATORY SAMPLE ANALYSES SITE/STUDY NAME: Apex/Hecla Pond CITY, STATE: St. George, Utah OPERABLE UNIT: ____ ACCOUNT NUMBER: SITE/PROJ. MANAGER: Linda Jacobson TELEPHONE NO: 303-312-6503 SAMPLING DATE(S): 11/16-17/98 SHIPPING DATE(S): SHIPPING CONTACT: Donna Inman TELEPHONE NO: PROJECT OFFICER:_ TELEPHONE NO:___ (if there is a Field Contractor) TURNAROUND TIME: POTENTIAL ENFORCEMENT ACTION ? YES (QA/R5 - Element R3) Date Broker received ULSA Request: To most efficiently obtain laboratory capability for your request, please address the following considerations. Incomplete or erroneous information may result in a delay in the processing of your request. Please assure that this request for analytical services has been signed and dated by the appropriate Site Manager. Please assure that the Sample Broker has a copy of all relevant Quality Assurance Project Plans (QAPPs) and Sampling and Analysis Plans (SAPs). Name and date Site Manager (EPA/State) approved QAPP:___ Title of OAPP: Where can a copy of this QAPP be found? Name and date Site Manager (EPA/State) approved SAP: Title of SAP: Sample and Analysis Plan, Apex/Hecla Pond, St. George, Utah Where can a copy of this SAP be found ? Signature of EPA or State Site Manager to signify approval of this analytical services request. Signature: Date:

General description of analytical services requested: 1.

Is sub-contracting specifically requested? YES

MATRIX	ANALYSIS (method)	NO. OF SAMPLES (without QC)	QC SAMPLES
Solids	TCLP Metals	13	2
Liquids	Total Metals	10	1
		·	·
		-	

If yes, why? ____

 Analytical protocol required (analytical method & method number, extraction or digestion method & method number for each matrix if required, etc.):

Analyze the solid samples for total metals. If the levels of total metals are lower than the Maximum Level for each metal in Table 1 below, then no further analysis is required. If the level of total metals exceed the Maximum Level (mq/kq) for any metal in Table 1 below, then that sample must be extracted according to SW-846 Method 1311 (Toxicity Characteristic Leaching Procedure) and The extract analyzed for the Metals listed in Table 1, below.

Table 1, Maximum Concentration of Inorganic Contaminants for the Toxicity Characteristic

EPA HW No. (1)	Contaminant	CAS No. {2}	Regulatory Level (mg/l)	Maximum Level (mg/kg)
D004	Arsenic	7440-38-2	5.0	100
D005	Barium	7440-39-3	100.0	2000
D006	Cadmium	7440-43-9	1.0	20
D007	Chromium	7440-47-3	5.0	100
D008	Lead	7439-92-1	5.0	100
D009	Mercury	7439-97-6	0.2	4
D010	Selenium	7782-49-2	1.0	20
D011	Silver	7440-22-4	5.0	100

Table 2, Maximum Concentration of Organic Contaminants for the Toxicity Characteristic

EPA HW No.	Contaminant	CAS No. {2}	Regulat- ory Level (mg/L)	Maximum μg/g as Total
D019	Carbon tetrachloride	56-23-5	0.5	10
D020	Chlordane	57-74-9	0.03	0.6
D021	Chlorobenzene	108-90-7	100.0	2000
D022	Chloroform	67-66-3	6.0	120
D007	Chromium	7440-47-3	5.0.	100
D023	o-Cresol	95-48-7	{4} 200.0	4000
D024	m-Cresol	108-39-4	{4} 200.0	4000
D025	p-Cresol	106-44-5	{4} 200.0	4000
D026	Cresol		[4] 200.0	4000
D016	2,4-D	94-75-7	10.0	200
D027	1,4-Dichlorobenzene	106-46-7	7.5	150
D028	1,2-Dichloroethane	107-06-2	0.5	10
D029	1,1-Dichloroethylene	75-35-4	0.7	14

D030		2,4-Dinitrotoluene	121-14-2	{3} 0.13	2.6
D012		Endrin	72-20-8	0.02	0.4
D031		Heptachlor (and its epoxide)	76-44-8	0.008	0.16
D032		Hexachlorobenzene	118-74-1	{3} 0.13	2.6
D033		Hexachlorobutadiene	87-68-3	0.5	10
D034		Hexachloroethane	67-72-1	3.0	60
D008		Lead	7439-92-1	5.0	100
D013	•	Lindane	58-89-9	0.4	8
D013		Methoxychlor	72-43-5	10.0	200
D035			72-43-3 78-93-3	200.0	4000
		Methyl ethyl ketone			
D036		Nitrobenzene	98-95-3	2.0	40
D037		Pentrachlorophenol	87-86-5	100.0	2000
D038		Pyridine	110-86-1	{3} 5.0	100
D039		Tetrachloroethylene	127-18-4	0.7	14
D015		Toxaphene	8001-35-2	0.5	10
D040		Trichloroethylene	79-01-6	0.5	10
D041		2,4,5-Trichlorophenol	95-95-4	400.0	8000
D042		2,4,6-Trichlorophenol	88-06-2	2.0	40
D017		2,4,5-TP (Silvex)	93-72-1	1.0	20
D043		Vinyl chloride	75-01-4	0.2	4
		Vinyi chicitae			•
		- Elements A6 & B4)	· · · · · · · · · · · · · · · · · · ·		
				•	
•					
				 '	
				*	•
1.	reque elec docu	ytical results required (specify laborativements, reporting units, specify formstronic deliverables are needed and requirementation, etc.).	at requirement	ts, indicate	if
		•			•
		· .			
			•		
			•		
				,	
5.	need	er (any additional specifications, attac led): - Element B4)	h supplementa	ry informati	on if
			•	 	•
		· · · · · · · · · · · · · · · · · · ·		·	
			· · · · · · · · · · · · · · · · · · ·		
	·	The laboratory must forward the Regio	n 8 data pack	age to:	
		Linda Jacobson		·	
		US EPA Region VIII, 8ENF-T			

Parameter	Detection Limit	Precision Desired (+ % or Concentration)	
ralameter	becection himit	(± ° or concentration)	
		· · · · · · · · · · · · · · · · · · ·	
<u> </u>	<u> </u>		
acceptance criter		; spikes, duplicates, blanks	s & frequ
QC Activities	Frequency	Limits (% or Concentration)	
	· .		
Action required i	f limits are exceeded	(criteria, procedures & resp	oonsibili
documentation, et		, ,	
The laboratory wi	11 stop analysis and co	ontact Jim Gindelberger	•
at 303-312-6984			·
·	*		
		• • • • • • • • • • • • • • • • • • • •	

Please FAX this request to the Regional Sample Broker (at 303-312-7828) as soon as

possible to expedite the processing of your request for unique laboratory sample analyses. Should you have any questions or need assistance, please contact the Broker at 303-312-6984 or the alternate Broker at 303-312-6738.

REGION 8 SAMPLE BROKER, FAX - 303-3: CONTRACTOR: CSCC:		DCN: ULSA No:_U8-9	
	IQUE LABORATORY	SAMPLE ANALYSES	
SITE/STUDY NAME: Apex/Hecla Pond	CITY, STATE: S	t. George, Utah	
OPERABLE UNIT:	ACCOUNT NUMBER	: <u> </u>	
(if Superfund) SITE/PROJ. MANAGER: Linda Jacobson	TELEPHONE NO:_	303-312-6503	
SAMPLING DATE(S): 11/16-17/98	SHIPPING DATE(S):	
SHIPPING CONTACT: Donna Inman	TELEPHONE NO:_		
PROJECT OFFICER:	TELEPHONE NO:_		
(if there is a Field Contractor) TURNAROUND TIME:	POTENTIAL ENFO (QA/R5 - Element B3)	RCEMENT ACTION ?	YES
Date Broker received ULSA Request:_	· · · · · · · · · · · · · · · · · · ·		
Please assure that this request for the appropriate Site Manager. Plea relevant Quality Assurance Project (SAPs).	se assure that	the Sample Broker	has a copy of all
Name and date Site Manager (EPA/State Title of QAPP:		·	
Where can a copy of this QAPP be fo	und ?	<u> </u>	
Name and date Site Manager (EPA/State Title of SAP:Samp <u>le and Analysis Pl</u> Where can a copy of this SAP be found	an, Apex/Hecla	Pond, St. George,	<u> Utah </u>
Signature of EPA or State Site Mana request.	ger to signify	approval of this	analytical services
Signature:		Date:	· · · · · · · · · · · · · · · · · · ·
Is sub-contracting specifically req	uested? YES	NO _	
If yes, why?	· · · · · · · · · · · · · · · · · · ·		· ·
1. General description of analyt	ical services r		· · · · · · · · · · · · · · · · · · ·

MATRIX	ANALYSIS (method)	NO. OF SAMPLES (without QC)	QC SAMPLES
Solids	TCLP Metals	13	2
Liquids	Total Metals	10	1
		·	,

 Analytical protocol required (analytical method & method number, extraction or digestion method & method number for each matrix if required, etc.):

Analyze the solid samples for total metals. If the levels of total

metals are lower than the Maximum Level for each metal in Table 1 below, then no

further analysis is required. If the level of total metals exceed the Maximum

Level (mq/kq) for any metal in Table 1 below, then that sample must be extracted

according to SW-846 Method 1311 (Toxicity Characteristic Leaching Procedure) and

The extract analyzed for the Metals listed in Table 1, below.

Table 1, Maximum Concentration of Inorganic Contaminants for the Toxicity Characteristic

EPA HW No. (1)	Contaminant	CAS No. {2}	Regulatory Level (mg/l)	Maximum Level (mg/kg)
D004	Arsenic	7440-38-2	5.0	100
D005	Barium	7440-39-3	100.0	2000
D006	Cadmium	7440-43-9	1.0	20
D007	Chromium	7440-47-3	5.0	100
D008	Lead	7439-92-1	5.0	100
D009	Mercury	7439-97-6	0.2	4
D010	Selenium	7782-49-2	1.0	20
D011	Silver	7440-22-4	5.0	100

Table 2, Maximum Concentration of Organic Contaminants for the Toxicity Characteristic

EPA HW No.	Contaminant	CAS No. {2}	Regulat- ory Level (mg/L)	Maximum µg/g as Total
-			•	
D019	Carbon tetrachloride	56-23-5	0.5	10
D020	Chlordane	57-74-9	0.03	0.6
D021	Chlorobenzene	108-90-7	100.0	2000
D022	Chloroform	67-66-3	6.0	120
D007	Chromium	7440-47-3	5.0.	100
D023	o-Cresol	95-48-7	{4} 200.0	4000
D024	m-Cresol	108-39-4	[4] 200.0	4000
D025	p-Cresol	106-44-5	{4} 200.0	4000
D026	Cresol		{4} 200.0	4000
D016	2,4-D	94-75-7	10.0	200
D027	1,4-Dichlorobenzene	106-46-7	7.5	150
D028	1,2-Dichloroethane	107-06-2	0.5	10
D029	1,1-Dichloroethylene	75-35-4	0.7	14

D030		2,4-Dinitrotoluene	121-14-2	{3} 0.13	2.6
D012		Endrin	72-20-8	0.02	0.4
D031		Heptachlor (and its epoxide)	76-44-8	0.008	0.16
D032		Hexachlorobenzene	118-74-1	{3} 0.13	2.6
D033		Hexachlorobutadiene	87-68-3	0.5	10
D034	•	Hexachloroethane	67-72-1	3.0	60
D008		Lead	7439-92-1	5.0	100
D013		Lindane	58-89-9	0.4	8
D014		Methoxychlor	72-43-5	10.0	200
D035		Methyl ethyl ketone	78-93-3	200.0	4000
D036		Nitrobenzene	98-95-3	2.0	40
D037		Pentrachlorophenol	87-86-5	100.0	2000
D038		Pyridine	110-86-1	{3} 5.0	100
D039		Tetrachloroethylene	127-18-4	0.7	14
D015		Toxaphene	8001-35-2	0.5	10
D040		Trichloroethylene	79-01-6	0.5	10
D041		2,4,5-Trichlorophenol	95-95-4	400.0	8000
D042		2,4,6-Trichlorophenol	88-06-2	2.0	40
D017	,	2,4,5-TP (Silvex)	93-72-1	1.0	- 20
D043		Vinyl chloride	75-01-4	0.2	4
					· ·
3.	Cnoc	cial technical instructions (specify any	roguirements	outside of	evicting
э.		cocol such as target analytes, reporting			
	matr	rix, dilution specifications, example ca	lculations if	applicable	etc.):
	(QA/R5	- Blements A6 & B4)	TOUTUUTOND II	apparoubre	, 000., 1
	-			-	
			`		
		_		·	
					• •
	. ———				
4.	Anal	ytical results required (specify labora	tory documenta	ation and re	eporting
	requ	irements, reporting units, specify form	at requirement	ts, indicate	eif
	elec	tronic deliverables are needed and requ	ired format,	chain-of-cu	stody
	docu	mentation, etc.).			· .
	(QA/R5	- Elements A6 4 B4)		ű.	
				•	
					•
					
•			•		
5.	Othe	er (any additional specifications, attac	h supplementa:	ry informat	ion if
		ied):	••	-	
	(QA/R5	- Element B4)		·	•
	· 				
		·			
		The laboratory must forward the Region	n 8 data nack	age to:	
		The labelacety mast forward the Regic	o data pack		
		Linda Jacobson			• •
					· · · · · · · · · · · · · · · · · · ·

5	Dahamadan Tanda	Precision Desired	
Parameter	Detection Limit	$(\pm % or Concentration)$	
	· · · · · · · · · · · · · · · · · · ·	. —————————————————————————————————————	
· <u></u>			
<u> </u>		· .	
·			
	· · · · · · · · · · · · · · · · · · ·		
QC Requirements (P	E samples & frequency;	; spikes, duplicates, blanks	& freque
acceptance criteri (QA/R5 - Elements B1, B5 : B7)	a; •	Limits	
QC Activities	Frequency	(% or Concentration)	
20. 11002.42.0200	rroquonoy	(0.01.000000000000000000000000000000000	

Action required if		(criteria, procedures & resp	oonsibili
documentation, etc.			•
documentation, etc	l stop analysis and co	ontact Jim Gindelberger	
documentation, etc. (QA/R5 - Elements B5 : D1) The laboratory will	l stop analysis and co	ontact Jim Gindelberger	
documentation, etc	l stop analysis and c	ontact Jim Gindelberger	
documentation, etc. (QA/R5 - Elements B5 : D1) The laboratory will	l stop analysis and co	ontact Jim Gindelberger	
documentation, etc. (QA/R5 - Elements B5 : D1) The laboratory will	l stop analysis and co	ontact Jim Gindelberger	

Please FAX this request to the Regional Sample Broker (at 303-312-7828) as soon as

possible to expedite the processing of your request for unique laboratory sample analyses. Should you have any questions or need assistance, please contact the Broker at 303-312-6984 or the alternate Broker at 303-312-6738.